

REMARKS

Claims 1-23 are pending in this application. Claims 1, 2, 4, 9, 10 and 16 have been amended and claim 24 has been added by the present Amendment. Amended claims 1, 2, 4, 9, 10 and 16 and new claim 24 do not introduce any new subject matter.

Claims 18-23 have been withdrawn from consideration without prejudice pursuant to 37 C.F.R. § 1.142(b), as being drawn to a non-elected invention and have been canceled without prejudice by the present Amendment. In addition, claims 3 and 17 have been canceled without prejudice by the present Amendment.

DRAWING OBJECTION

The Examiner has objected to the drawings under M.P.E.P. § 608.02(g), stating that "Figure 3 should be designated by a legend such as –Prior Art– because only that which is old is illustrated."

In response to the Examiner's objection, Applicants have amended Figure 3 include the legend –Prior Art–. Accordingly, Applicants respectfully request that the Examiner withdraw the objection to the drawings.

In accordance with 37 C.F.R. § 1.84, Applicants file herewith a replacement drawing sheet for amended Fig. 3, which has been labeled "Replacement Sheet".

OBJECTIONS TO THE CLAIMS

The Examiner has objected to claims 2, 9 and 16 because the Examiner states that claims 2, 9 and 16 include the phrase "at least one of under and adjacent", which the Examiner suggests amending to "at least one of under or adjacent".

In accordance with the Examiner's suggestion, Applicants have amended claims 2, 9 and 16 to replace the connector "and" with "or" between "under" and "adjacent".

Therefore, Applicants respectfully request that the Examiner withdraw the objection to claims 2, 9 and 16.

Applicants also noticed the use of the "under and adjacent" language in claim 10. Accordingly, in an effort to ensure proper claim construction, Applicants have amended claim 10 to replace the connector "and" with "or" between "under" and "adjacent".

REJECTIONS UNDER 35 U.S.C. § 102

Claims 1, 2, 4 and 5

Reconsideration is respectfully requested of the rejection of claim 1, 2, 4 and 5 under 35 U.S.C. § 102(a) as being anticipated by Applicant's admitted prior art ("AAPA").

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the . . . claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989); M.P.E.P. § 2131.

Applicants respectfully submit that AAPA does not disclose or suggest a first portion of the floating gate formed over the active area that is narrower than a second portion of the floating gate formed over the isolation layer, wherein the control gate is formed over the second portion and not over the first portion of the floating gate, as recited in amended claim 1. Therefore, Applicants respectfully submit that claim 1 is not anticipated by AAPA. For at least the reason that claims 2, 4 and 5 depend from claim 1, claims 2, 4 and 5 are also submitted not to be anticipated by the cited

reference.

Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 1, 4 and 5 under 35 U.S.C. § 102(a) and that claims 1, 4 and 5 are in condition for allowance.

Claims 9 and 10

Reconsideration is respectfully requested of the rejection of claims 9 and 10 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,037,625 ("Matsubara").

Applicants respectfully submit that Matsubara does not disclose or suggest a first portion of the floating gate formed over the active area that is narrower than a second portion of the floating gate formed over the isolation layer, wherein the control gate is formed over the second portion and not over the first portion of the floating gate, as recited in amended claim 9. Therefore, Applicants respectfully submit that claim 9 is not anticipated by Matsubara. For at least the reason that claim 10 depends from claim 1, claim 10 is also submitted not to be anticipated by the cited reference.

Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 9 and 10 under 35 U.S.C. § 102(b) and that claims 9 and 10 are in condition for allowance.

REJECTIONS UNDER 35 U.S.C. § 103(a)

Claim 3

The rejection of claim 3 under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of U.S. Patent Application Publication No. 2005/0074935 ("Hsu") is rendered moot by the cancellation of claim 3.

However, because part of claim 3 has been incorporated into claim 1, Applicants note that AAPA, when taken alone or in combination with Hsu, fails to teach or suggest a first portion of the floating gate formed over the active area that is narrower than a second portion of the floating gate formed over the isolation layer, wherein the control gate is formed over the second portion and not over the first portion of the floating gate, as recited in amended claim 1.

As stated above, AAPA does not disclose these features. Further, the addition of Hsu does not render the claimed features obvious. Although Hsu may show a floating gate having narrow and wide portions, Hsu does not teach or suggest a control gate that is formed over the wide portion and not over the narrow portion of the floating gate, as recited in amended claim 1.

Therefore, it is respectfully submitted that the cited references, when taken alone or in combination, do not disclose or suggest the embodiment of the present invention, as defined in amended claim 1, and that it would not have been obvious to modify AAPA, in view of Hsu, to develop same.

As such, Applicants respectfully submit that the embodiment of the invention as defined in amended claim 1 is patentable over AAPA, in view of Hsu.

Claims 6-8

Reconsideration is respectfully requested of the rejection of claims 6-8 under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Matsubara.

Applicant respectfully submits that AAPA, when taken alone or in combination with Matsubara, fails to teach or suggest a first portion of the floating gate formed over the active area that is narrower than a second portion of the floating gate formed over

the isolation layer, wherein the control gate is formed over the second portion and not over the first portion of the floating gate, as recited in amended claim 1.

As stated above, neither AAPA nor Matsubara disclose these features.

Therefore, it is respectfully submitted that the cited references, when taken alone or in combination, do not disclose or suggest the embodiment of the present invention, as defined in amended claim 1, and that it would not have been obvious to modify AAPA, in view of Matsubara, to develop same.

As such, Applicants respectfully submit that the embodiment of the invention as defined in amended claim 1 is patentable over AAPA, in view of Matsubara. For at least the reason that claims 6-8 depend from claim 1, claims 6-8 are also submitted to be patentably distinct over the cited references.

Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 6-8 under 35 U.S.C. § 103(a) and that claims 6-8 are in condition for allowance.

Claims 11, and 14-16

Reconsideration is respectfully requested of the rejection of claims 11 and 14-16 under 35 U.S.C. § 103(a) as being unpatentable over Matsubara in view of U.S. Patent No. 6348,378 ("Lee").

Applicant respectfully submits that Matsubara, when taken alone or in combination with Lee, fails to teach or suggest a first portion of the floating gate formed over a first area that is narrower than a second portion of the floating gate formed over an isolation layer, wherein the control gate is formed over the second portion and not over the first portion of the floating gate, as recited in amended claims 9 and 16.

As stated above, Matsubara does not disclose or suggest these features. Further, the addition of Lee does not render the claimed features obvious.

Therefore, it is respectfully submitted that the cited references, when taken alone or in combination, do not disclose or suggest the embodiments of the present invention, as defined in amended claims 9 and 16, and that it would not have been obvious to modify Matsubara, in view of Lee, to develop same.

As such, Applicants respectfully submit that the embodiments of the invention as defined in amended claims 9 and 16 are patentable over Matsubara, in view of Lee. For at least the reason that claims 11 and 14-15 depend from claim 1, claims 11 and 14-15 are also submitted to be patentably distinct over the cited references.

Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 11 and 14-16 under 35 U.S.C. § 103(a) and that claims 11 and 14-16 are in condition for allowance.

Claims 12 and 13

Reconsideration is respectfully requested of the rejection of claims 12 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Matsubara in view of U.S. Patent No. 6,429,073 ("Furuhata").

Claims 12-13 are patentable by virtue of their dependency on claim 9

Applicant respectfully submits that Matsubara, when taken alone or in combination with Furuata, fails to teach or suggest a first portion of the floating gate formed over the active area that is narrower than a second portion of the floating gate formed over the isolation layer, wherein the control gate is formed over the second portion and not over the first portion of the floating gate, as recited in amended claim 9.

As stated above, Matsubara does not disclose this feature. Further, the addition of Furuata does not render the claimed feature obvious.

Therefore, it is respectfully submitted that the cited references, when taken alone or in combination, do not disclose or suggest the embodiment of the present invention, as defined in amended claim 9, and that it would not have been obvious to modify Matsubara, in view of Furuata, to develop same.

As such, Applicants respectfully submit that the embodiment of the invention as defined in amended claim 9 is patentable over Matsubara, in view of Furuata. For at least the reason that claims 12-13 depend from claim 9, claims 12-13 are also submitted to be patentably distinct over the cited references.

Claims 12-13 are patentable in their own right

Applicants respectfully submit that the thickness ranges of the oxide layers in Furuata are not sufficient to render obvious the specific relationship between the tunnel and first and second gate oxide layers recited in claim 12. Specifically, Applicants respectfully submit that the Examiner used impermissible hindsight reasoning to conclude that the general disclosure in Furuata of different thickness ranges renders obvious the specific configuration of a second gate oxide layer that is thinner than a tunnel oxide layer, and a first gate oxide layer that is thicker than both the tunnel and second gate oxide layers. There is simply no teaching in Furuata that suggests such a relationship. Accordingly, the Examiner's reliance on Furuata is misplaced.

Therefore, it would not have been obvious to modify Matsubara, in view of Furuata, to develop the embodiment of the invention as defined in claim 12.

Accordingly, in view of the foregoing, Applicants respectfully request that the Examiner withdraw the rejection of claims 12-13 under 35 U.S.C. § 103(a) and that claims 12-13 are in condition for allowance.

Claim 17

The rejection of claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Matsubara in view of Lee and further in view of Hsu is rendered moot by the cancellation of claim 17.

However, because part of claim 17 has been incorporated into claim 16, Applicants note that Matsubara, when taken alone or in combination with Lee and Hsu, fails to teach or suggest a first portion of the floating gate formed over a first area that is narrower than a second portion of the floating gate formed over the at least one isolation layer, wherein the control gate is formed over the second portion of the floating gate and not over the first portion of the floating gate, as recited in amended claim 16.

As stated above, none of the cited references disclose the features as claimed.

Therefore, it is respectfully submitted that the cited references, when taken alone or in combination, do not disclose or suggest the embodiment of the present invention, as defined in amended claim 16, and that it would not have been obvious to modify Matsubara, in view of Lee, and further in view of Hsu to develop same.

As such, Applicants respectfully submit that the embodiment of the invention as defined in amended claim 16 is patentable over Matsubara, in view of Lee, and further in view of Hsu.

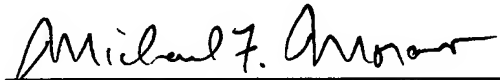
NEW CLAIM

Applicants respectfully submit new claim 24 for consideration and that new claim

24 is patentable over the cited references for at least the same reasons that claim 12 is patentable in its own right. See discussion of claim 12 above.

An early and favorable reconsideration is earnestly solicited. If the Examiner has any further questions or comments, the Examiner may telephone Applicants' Attorney to reach a prompt disposition of this application.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Michael F. Morano", is written over a horizontal line.

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